REMARKS

Applicant requests favorable reconsideration and allowance of the present application in view of the foregoing amendments and the following remarks.

Claims 1, 3-10, 12-19 and 21-30 are pending in the present application. Claims 1, 10, and 19 are the independent claims.

Claims 2, 11, and 20 have been cancelled without prejudice. Claims 1, 10, and 19 have been amended. Applicants submit that support for these amendments can be found in the original disclosure, and therefore no new matter has been added.

The drawings have been objected to as failing to comply with 37 CFR 1.84(p)(4) because reference numeral 107 has been used to designate both an HMD and a player. By a separate paper filed concurrently herewith, Applicants are requesting approval to amend Fig. 1 of the drawings to chance the reference numeral from 107 to 101 for the player. Favorable consideration is requested.

The disclosure has been objected to because reference numeral 101 is mentioned at page 11, line 4, but is not shown in Figure 1. Applicants submit that the proposed drawing correction will address this objection, and therefore reconsideration is requested.

Claims 1-27 stand rejected under 35.U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,445,815 (Sato). Applicants respectfully traverse this rejection for the reasons discussed below.

As recited in independent Claim 1, the present invention is directed to an augmented reality presentation apparatus for superimposing a virtual object in a real space. The invention recited in Claim 1 includes, *inter alia*, the features of objective viewpoint

video display means for displaying an augmented reality video obtained from a first video composition means, and a display means for displaying to a player the augment reality video viewed from the player's viewpoint position. The objective viewpoint video display means is disclosed, by way of example only, as reference numeral 106 in Fig. 1. The other display means is displayed, for example, as reference numeral 107 in Fig. 1. By these features, an augmented reality video (i.e., a virtual object superimposed in a real space) can be displayed according to both a player's viewpoint and a viewpoint that differs from the player's viewpoint (for example, according to the viewpoint of camera 103 in Fig. 1). Applicants submit that the cited art fails to disclose or suggest at least these features.

Sato discloses an apparatus for calculating depth information using an image obtained from stereo camera 102, and control of a process of superimposing computer graphics (CG) on a real image. *See, e.g.,* Fig. 16 of Sato. More specifically, that patent discloses a configuration for generating an augmented image viewed from a player's viewpoint and a configuration for calculating depth information used to control a process of superimposing CG on a real image. According to Sato, an augmented image viewed from a player's viewpoint is made using "head position/posture sensor 101," "three dimensional CG data base 301," and "image generation module 300." That patent also discloses calculating depth information used to control a process of superimposing CG on a real image using "camera 102," "depth estimation modules 202," and "depth warping module 203."

However, Applicants submit that Sato merely discloses a configuration for generating an augmented image according to a player's viewpoint, and it fails to disclose or suggest at least the features of Claim 1 of displaying an augmented reality video viewed

from a player's position and viewed from an objective viewpoint. Accordingly, Applicants submit that the cited art fails to disclose or suggest at least the above-mentioned features of the present invention recited in Claim 1.

The other cited art fails to remedy the above-noted deficiencies of Sato.

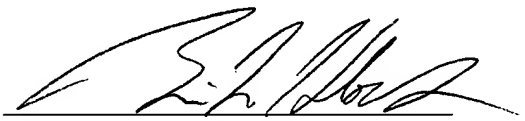
Independent Claims 10 and 19 are respectively a method claim and a storage medium claim having features similar to those of Claim 1.

In view of the foregoing, Applicants submit that the present invention recited in Claims 1, 10, and 19 is patentable over the cited art. The dependent claims are patentable for the same reasons as the independent claims, as well as for the additional features that they recite.

For the foregoing reasons, Applicants submit that this application is in condition for allowance. Favorable reconsideration, withdrawal of the rejections set forth in the above-mentioned Office Action, and an early Notice of Allowance are requested.

Applicants' undersigned attorney may be reached in our Washington, DC office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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APPENDIX

MARKED-UP VERSION SHOWING AMENDMENTS TO CLAIMS

1. (Amended) An augmented reality presentation apparatus for superimposing a virtual object in a real space, characterized by comprising:

[augmented reality presentation means for superimposing the virtual object viewed from a player's viewpoint position in the real space viewed from said player's viewpoint position;]

objective viewpoint augmented reality presentation means for superimposing the virtual object viewed from a first viewpoint position, which differs from a player's viewpoint position, in the real space viewed from the first viewpoint position,

wherein said objective viewpoint augmented reality presentation means includes

[the] first video sensing means for sensing a video of the real space viewed [from a first viewpoint position which differ] from [said player's] the first viewpoint position;

[the] first video generation means for generating a video of the virtual object viewed from [said] the first viewpoint position; [and]

[the] first video composition means for [compositing] composing an augmented reality video viewed from [said] the first viewpoint position on the basis of

[said] the videos of the real space and the virtual object viewed from [said] the first viewpoint position, and

objective viewpoint video display means for displaying the augmented reality video obtained from said first video composition means;

wherein said apparatus further comprises:

augmented reality presentation means for superimposing the virtual object viewed from the player's viewpoint position in the real space viewed from the player's viewpoint position,

wherein said augmented reality presentation means includes

second video sensing means for sensing a video of the real space viewed from the player's viewpoint position;

second video generation means for generating a video of the virtual object viewed from the player's viewpoint position;

second video composition means for composing an augmented reality video viewed from the player's viewpoint position on the basis of the videos of the real space and the virtual object viewed from the player's viewpoint position; and

display means for displaying to the player the augmented reality video viewed from the player's viewpoint position.

10. (Amended) An augmented reality presentation method for superimposing a virtual object in a real space, characterized by comprising:

[augmented reality presentation step of superimposing the virtual object viewed from a player's viewpoint position in the real space viewed from said player's viewpoint position;]

an objective viewpoint augmented reality presentation step of superimposing the virtual object viewed from a first viewpoint position, which differs from a player's viewpoint position, in the real space viewed from the first viewpoint position;

wherein said objective viewpoint augmented reality presentation step includes

[the] a first video sensing step of sensing a video of the real space viewed [from a first viewpoint position which differ] from [said player's] the first viewpoint position;

[the] a first video generation step of generating a video of the virtual object viewed from [said] the first viewpoint position; [and]

[the] a first video composition step of [compositing] composing an augmented reality video viewed from [said] the first viewpoint position on the basis of [said] the videos of the real space and the virtual object viewed from [said] the first viewpoint position, and

an objective viewpoint video display step of displaying the augmented reality video obtained from said first video composition step;

wherein said method further comprises:

an augmented reality presentation step of superimposing the virtual object viewed from the player's viewpoint position in the real space viewed from the player's viewpoint position,

wherein said augmented reality presentation step includes

a second video sensing step of sensing a video of the real space viewed from the player's viewpoint position;

a second video generation step of generating a video of the virtual object viewed from the player's viewpoint position;

a second video composition step of composing an augmented reality video viewed from the player's viewpoint position on the basis of the videos of the real space and the virtual object viewed from the player's viewpoint position; and

a display step for displaying to the player the augmented reality video viewed from the player's viewpoint position.

19. (Amended) A storage medium storing a program code for superimposing a virtual object in a real space when said program code is loaded by a computer, characterized by comprising:

[a program code of the augmented reality presentation step of superimposing the virtual object viewed from a player's viewpoint position in the real space viewed from said player' viewpoint position] a program code of an objective viewpoint augmented reality presentation step of superimposing the virtual object viewed

from a first viewpoint position, which differs from a player's viewpoint position, in the real space viewed from the first viewpoint position,

wherein said program code of the objective viewpoint augmented reality presentation step includes

a program code of [the] a first video sensing step of sensing a video of the real space viewed from [a first viewpoint position which differ from said player's] the first viewpoint position;

a program code of [the] a first video generation step of generating a video of the virtual object viewed from [said] the first viewpoint position; [and]

a program code of [the] a first video composition step of [compositing] composing an augmented reality video viewed from [said] the first viewpoint position on the basis of [said] the videos of the real space and the virtual object viewed from [said] the first viewpoint position; and

a program code for an objective viewpoint video display step of displaying the augmented reality video obtained from the first video composition means,

wherein said storage medium further stores:

a program code for an augmented reality presentation step of superimposing the virtual object viewed from the player's viewpoint position in the real space viewed from the player's viewpoint position,

wherein said program code for the augmented reality presentation step includes

a program code for a second video sensing step of sensing a video of the real space viewed from the player's viewpoint position;

a program code for a second video generation step of generating a video of the virtual object viewed from the player's viewpoint position;

a program code for a second video composition step of composing an augmented reality video viewed from the player's viewpoint position on the basis of the videos of the real space and the virtual object viewed from the player's viewpoint position; and

a program code for a display step of displaying to the player the augmented reality video viewed from the player's viewpoint position.